STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE GOVERNOR

February 13, 2015

Amy Holland Environmental Specialist Twin Rivers Paper Company 82 Bridge Avenue Madawaska, ME 04756 amy.holland@twinriverspaper.com

Transmitted via electronic mail Delivery confirmation requested

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0000159 Maine Waste Discharge License (WDL) Application #W002727-5N-N-R **Proposed Draft Permit**

Dear Ms. Holland:

Enclosed is a **proposed draft** MEPDES permit and Maine WDL (permit hereinafter) which the Department proposes to issue as a final document after opportunity for your review and comment. By transmittal of this letter you are provided with an opportunity to comment on the proposed draft permit and its conditions (special conditions specific to this permit are enclosed; standard conditions applicable to all permits are available upon request). If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business **Monday March 16, 2015.** Failure to submit comments in a timely fashion will result in the final document being issued as drafted. Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection Bureau of Land & Water Quality Division of Water Quality Management 17 State House Station Augusta, ME 04333



PATRICIA W AHO

COMMISSIONER

If you have any questions regarding the matter, please feel free to call me at 215-1579.

Sincerely,

Yvette Meunier

Yvette M. Meunier Division of Water Quality Management Bureau of Land and Water Quality

Enc.

cc: Sean Bernard, DEP/NMRO Barry Mower, DEP/CMRO Susanne Meidel, DEP/CMRO Pam Parker, DEP/CMRO Olga Vergara, EPA Marelyn Vega, EPA Alex Rosenberg, EPA David Pincumbe, EPA David Webster, EPA Environmental Reviewer, IFW Ivy Frignoca, CLF Environmental Reviewer, DMR



STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

TWIN RIVERS PAPER COMPANY	LLC)	MAINE POLLUTANT DISCHARGE
MADAWASKA, AROOSTOOK COU	JNTY, MAINE)	ELIMINATION SYSTEM PERMIT
PAPER MANUFACTURING FACIL	ITY)	AND
#ME0000159)	WASTE DISCHARGE LICENSE
#W002727-5N-N-R APP	PROVAL)	RENEWAL

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S.A. §§ 411 – 424-B, *Water Classification Program*, 38 M.R.S.A. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251, and applicable rules of the Department of Environmental Protection (Department), the Department has considered the application of the Twin Rivers Paper Company (TWIN RIVERS), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On August 19, 2014, the Department accepted as complete for processing, a renewal application for Maine Pollutant Discharge Elimination System (MEPDES) #ME0000159 /Waste Discharge License (WDL) #W002727-5N-J-R, which was issued on October 16, 2009 for a five-year term. The 10/16/09 MEPDES permit authorized the monthly average discharge of 15.0 million gallons per day (MGD) of secondary treated paper production process wastewaters, treated landfill leachate, non-contact cooling waters, filter backwash and storm water runoff from a paper manufacturing facility to the St. John River, Class C, in Madawaska, Maine

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting action except it is:

- 1. Incorporating the interim mercury limits established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001);
- 2. Revising the minimum monitoring frequency requirements for biochemical oxygen demand (BOD₅) and total suspended solids (TSS) based on the results of facility testing;
- 3. Revising the timing of the screening priority pollutant, analytical chemistry and surveillance level priority pollutant, analytical chemistry testing during permit cycle;
- 4. Eliminating the effluent limitations and monitoring requirements for total aluminum, chlorodibromomethane, dichlorobromomethane and heptachlor based on the results of facility testing;
- 5. Establishing monitoring requirements for phosphorous;

PERMIT SUMMARY (cont'd)

- 6. Increasing the chronic water flea wet surveillance testing; and
- 7. Establishing a chronic water flea effluent limitation.

CONCLUSIONS

Based on the findings summarized in the attached **PROPOSED DRAFT** Fact Sheet dated February 13, 2015, and subject to the special and standard conditions that follow, the Department makes the following CONCLUSIONS:

- 1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
- 2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
- 3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S.A. § 464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;
 - (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharges will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses*, 38 M.R.S.A. § 414-A(1)(D).

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the above noted application of the TWIN RIVERS PAPER COMPANY LLC to discharge a monthly average of 15.0 MGD of secondary treated paper production process waste waters, treated landfill leachate, non-contact cooling waters, filter backwash and storm water runoff from a paper manufacturing facility to the St. John River, Class C, via Outfall #001A in Madawaska, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

- 1. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, copy attached.
- 2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
- 3. This permit and the authorization to discharge become effective upon the date of signature below and expire at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (amended August 25, 2013)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:____

PATRICIA W. AHO, Commissioner

Date filed with Board of Environmental Protection

Date of initial receipt of application:August 15, 2014Date of application acceptance:August 19, 2014This Order prepared by Yvette Meunier, BUREAU OF LAND & WATER QUALITY

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated paper production process waste waters, treated landfill leachate, noncontact cooling waters, filter backwash and storm water runoff from <u>Outfall #001A</u> to the St. John River at Madawaska. Such discharges are limited and must be monitored by the permittee as specified below⁽¹⁾:

Effluent Characteristic	Discharge Limitations				Minimum N Require	Aonitoring ements
		Daily	Monthly	Daily	Measurement	Sample
	Average	Maximum	Average	Maximum	Frequency	Туре
Flow	15.0 MGD	Report MGD			Continuous	Recorder
[50050]	[03]	[03]			[99/99]	[<i>RC</i>]
Biochemical Oxygen Demand (BOD ₅) [00310]	12,360 lbs./day [26]	19,425 lbs./day [26]	Report mg/L [19]	Report mg/L [19]	1/Day [01/01]	Composite [24]
Total Suspended Solids [00530] June 1 – October 31	9,893 lbs./day	12,200 lbs./day	Report mg/L	Report mg/L	3/Week [03/07]	Composite [24]
November 1 – May 31	[26]	[26]	[19]	[19]		
pH Moadaly				5.0 – 9.0 SU [12]	1/Day [01/01]	Grab (GR)
Mercury ⁽³⁾ [71900]			5.7 ng/L [3M]	8.6 ng/L [3M]	1/Year [01/YR]	Grab [GR]
Phosphorus (Total) ⁽⁴⁾ [00665] June 1 – September 30, 2015			Report µg/L [28]	Report µg/L [28]	1/Week [01/07]	Grab [GR]

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

<u>FOOTNOTES</u>: See Pages 7 through 9 of this permit for applicable footnotes.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

2. *SURVEILLANCE LEVEL* - Beginning upon issuance and lasting through 24 months prior to permit expiration ⁽¹⁾ (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

Effluent Characteristic	Daily Maximum	Minimum Frequency	Sample Type
Whole Effluent Toxicity ⁽⁵⁾ <u>Acute – NOEL</u> <i>Ceriodaphnia dubia</i> (Water flea) [TDA3B] Salvelinus fontinalis (Brook trout) [TDA6F]	Report % [23] Report % [23]	1/ Year [01/YR] 1/ 2 Years [01/2Y]	Composite [24] Composite [24]
<u>Chronic – NOEL</u> Ceriodaphnia dubia (Water flea) [TBP3B] Salvelinus fontinalis (Brook trout) [TBQ6F]	2.7 % [23] Report % [23]	1/ Year [01/YR] 1/ 2 Years [01/2Y]	Composite [24] Composite [24]
Analytical Chemistry ^(6,8) [51477]	Report ug/L [28]	1/2 Years [01/2Y]	Composite / Grab [24/GR]

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See Pages 7 through 9 of this permit for applicable footnotes.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

3. *SCREENING LEVEL TESTING* - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

Effluent Characteristic	Daily Maximum	Minimum Frequency	Sample Type
Whole Effluent Toxicity ⁽⁵⁾ <u>Acute – NOEL</u> <i>Ceriodaphnia dubia</i> (Water flea) [TDA3B] Salvelinus fontinalis (Brook trout) [TDA6F]	Report % [23] Report % [23]	2/Year ⁽²⁾ [02/YR] 2/Year ⁽²⁾ [02/YR]	Composite [24] Composite [24]
<u>Chronic – NOEL</u> Ceriodaphnia dubia (Water flea) [TBP3B] Salvelinus fontinalis (Brook trout) [TBQ6F]	2.7 % [23] Report % [23]	2/Year ⁽²⁾ [02/YR] 2/Year ⁽²⁾ [02/YR]	Composite [24] Composite [24]
Analytical Chemistry ^(6,8) [51477]	Report ug/L [28]	1/ Quarter [01/90]	Composite / Grab [24/GR]
Priority Pollutant ^(7,8) [50008]	Report ug/L [28]	1/Year [01/YR]	Composite / Grab [24/GR]

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

<u>FOOTNOTES</u>: See Pages 7 through 9 of this permit for applicable footnotes.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES

- 1. **Sampling** –All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process, as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (effective April 1, 2010). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.
- 2. **Monitoring for parameters twice per year (2/Year)** Monitoring for chemical-specific parameters that are required to be monitored at a minimum frequency of twice per calendar year shall be conducted with one test in January to June and one test 6 months later pursuant to 06-096 CMR 530(2)(D)(2).
- 3. Mercury The permittee must conduct all mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 CMR 519 in accordance with the USEPA's "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. See Attachment A for a Department report form for mercury test results. Compliance with the monthly average limitation established in Special Condition A.1 of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

Phosphorus (Total) – A non-detect analytical test result shall be reported as <Y where Y is the minimum level for reporting quantitative data specified by the laboratory in their report for each respective parameter. Reporting a value of <Y that is greater than an established RL is not acceptable and will be rejected by the Department. Lab data that have an estimated value ("J" flagged) below an established RL shall be reported as "< RL". Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents. Effluent total phosphorus sampling must be done in accordance with **Attachment B**.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES

- 4. Whole effluent toxicity (WET) testing Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic thresholds of 2.7% and 2.7% respectively), which provides an estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level level with survival, reproduction and growth as the end points. The critical acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factors of 36:1 and 36:1, respectively.
 - a. **Surveillance level testing** Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must initiate surveillance level acute and chronic WET testing at a minimum frequency of once every other year (1/2 Years) for the water flea (*Ceriodaphnia dubia*) and once every year (1/2 Year) for the brook trout (*Salvelinus fontinalis*). Testing must be conducted in a different calendar quarter each sampling event.
 - b. Screening level testing Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level acute and chronic WET testing at a minimum frequency of twice per year (2/Year) for both species. Acute and chronic tests must be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*), respectively. Testing must be conducted in a different calendar quarter each sampling event.

WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 2.7% and 2.7%, respectively. See **Attachment C** of this permit for WET reporting forms.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals as modified by Department protocol for the brook trout. See Attachment D of this permit for the Department protocol.

u.S. Environmental Protection Agency. 2002. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5th ed. EPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual).

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES

b. U.S. Environmental Protection Agency. 2002. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th ed. EPA 821-R-02-013. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the freshwater chronic method manual).

6. Analytical Chemistry – Refers to those pollutants listed under "Analytical Chemistry" on the form included as Attachment A of this permit.

- a. **Surveillance level testing** Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit), the permittee must conduct analytical chemistry testing at a minimum frequency of once every two years. Testing must be conducted in a different calendar quarter of each year.
- b. **Screening level testing** Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level analytical chemistry testing at a minimum frequency of four times per year (4/Year) in successive calendar quarters.
- 7. **Priority Pollutant Testing** Refers to those pollutants listed under "Priority Pollutants" on the form included as **Attachment A** of this permit.
 - a. **Screening level testing** Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee must conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year) in any calendar quarter provided the sample is representative of the discharge and any seasonal or other variations in effluent quality.
- 8. **Priority Pollutant and Analytical Chemistry Testing** This testing must be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry testing must be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department.

Test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended July 29, 2012). For the purposes of

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES

DMR reporting, enter a "1" for <u>yes</u>, testing done this monitoring period or "NODI-9" monitoring <u>not required</u> this period.

B. NARRATIVE EFFLUENT LIMITATIONS

- 1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the usages designated for the classification of the receiving waters.
- 2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated for the classification of the receiving waters.
- 3. The permittee must not discharge wastewater that causes visible discoloration or turbidity in the receiving waters that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
- 4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.

C. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade V** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, 32 M.R.S.A. §§ 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on August 19, 2014; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source(s) are not authorized under this permit, and must be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

E. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and

E. NOTIFICATION REQUIREMENT (cont'd)

- 2. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants to the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change must include information on:
 - a. the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - b. any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.
- 3. For the purposes of this section, notice regarding substantial change must include information on:
 - a. the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - b. any anticipated impact caused by the change in the quantity or quality of the wastewater to be discharged from the treatment system.

F. MONITORING AND REPORTING

Monitoring results obtained during the previous month must be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMRs are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein must be submitted to the Department assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection Northern Maine Regional Office Bureau of Land and Water Quality Division of Water Quality Management 1235 Skyway Park Presque Isle, Maine 04769

Alternatively, if the permittee submits an electronic DMR (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the **15th day of the month** following the completed reporting period. Hard copy documentation submitted in support of the eDMR must be postmarked on or before the **thirteenth**

 (13^{th}) day of the month or hand-delivered to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15^{th}) day of the month following the completed reporting period. Electronic documentation in support of the eDMR must be submitted not later than close of business on the 15^{th} day of the month following the completed reporting period.

G. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit *[ICIS Code 96299]*. See **Attachment E** of the permit for an acceptable certification form to satisfy this Special Condition.

- a. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- b. Changes in the operation of the treatment works that may increase the toxicity of the discharge;
- c. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge;

In addition, in the comments section of the certification form, the permittee must provide the Department with statements describing;

- d. Changes in stormwater collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and
- e. Increases in the type or volume of transported (hauled) wastes accepted by the facility.

The Department may require that annual testing be re-instated if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

H. OPERATIONS AND MAINTENANCE (O&M) PLAN

The permittee must maintain a current written comprehensive Operation & Maintenance (O&M) Plan for the facility. The plan must provide a systematic approach by which the permittee must at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on-site at all times and made available to Department and USEPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee must submit the updated O&M Plan to their Department inspector for review and comment.

I. REOPENING OF PERMIT FOR MODIFICATION

In accordance with 38 M.R.S.A. § 414-A(5) and upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the

I. REOPENING OF PERMIT FOR MODIFICATION (cont'd)

Department may, at any time and with notice to the permittee, modify this permit to: 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

J. SEVERABILITY

In the event that any provision(s), or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit must remain in full force and effect, and must be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

ATTACHMENT A

Maine Department of Environmental Protection Effluent Mercury Test Report

Name of Facility:	Federal Permit # ME
Purpose of this test: Initial limit determination Compliance monitoring Supplemental or extra te	n for: year calendar quarter st
SAMPLE COLLECT	ION INFORMATION
Sampling Date: mm dd yy Sampling Location:	Sampling time:AM/PM
Weather Conditions:	
Please describe any unusual conditions with the in time of sample collection:	Ifluent or at the facility during or preceding the
Optional test - not required but recommended wh evaluation of mercury results:	ere possible to allow for the most meaningful
Suspended Solidsmg/L Samp	e type: Grab (recommended) or Composite
ANALYTICAL RESULT F	OR EFFLUENT MERCURY
Name of Laboratory:	
Date of analysis:	Result: ng/L (PPT)
Please Enter Effluent Limits for Effluent Limits: Average = ng/L	r your facility Maximum =ng/L
Please attach any remarks or comments from the their interpretation. If duplicate samples were tak	aboratory that may have a bearing on the results or en at the same time please report the average.
CERTIF	ICATION
I certify that to the best of my knowledge the for conditions at the time of sample collection. The s using EPA Methods 1669 (clean sampling) and 1 instructions from the DEP.	egoing information is correct and representative of ample for mercury was collected and analyzed 531 (trace level analysis) in accordance with
Ву:	Date:
Title:	

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT B

Attachment C

Protocol for Total Phosphorus Sample Collection and Analysis for Waste Water Effluent

Approved Analytical Methods: EPA 200.7 (Rev. 44), 365.1 (Rev. 2.0), (Lachat), 365.3, 365.4; SM 3120 B, 4500-P B.5, 4500-P E, 4500-P F, 4500-P G, 4500-P H; ASTM D515-88(A), D515-88(B); USGS I-4471-97, I-4600-85, I-4610-91; OMAAOAC 973.55, 973.56 (laboratory must be certified for any method performed)

Sample Collection: The Maine DEP is requesting that total phosphorus analysis be conducted on composite effluent samples, unless a facility's Permit specifically designates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute HCL. This cleaning should be followed by several rinses with distilled water. Commercially purchased, pre-cleaned sample containers are an acceptable alternative. The sampler hoses should be cleaned, as needed.

Sample Preservation: During compositing the sample must be at 0-6 degrees C (without freezing). If the sample is being sent to a commercial laboratory or analysis cannot be performed the day of collection then the sample must be preserved using H_2SO_4 to obtain a sample pH of <2 su and refrigerated at 0-6 degrees C (without freezing). The holding time for a preserved sample is 28 days.

Note: Ideally, Total P samples are preserved as described above. However, if a facility is using a commercial laboratory then that laboratory may choose to add acid to the sample once it arrives at the laboratory. The Maine DEP will accept results that use either of these preservation methods.

Laboratory QA/QC: Laboratories must follow the appropriate QA/QC procedures that are described in each of the approved methods.

Sampling QA/QC: If a composite sample is being collected using an automated sampler, then once per month run a blank on the composite sampler. Automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then analyze for total phosphorus. Preserve this sample as described above.

ATTACHMENT C

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION WHOLE EFFLUENT TOXICITY REPORT FRESH WATERS

Facility Name			1	MEPDES Permi	.#	
Facility Representative By signing this form, I attest th	at to the best of my l	knowledge that the	Signature	l is true, accurate,	and complete.	
Facility Telephone #			Date Collected	(11)	_Date Tested	(11)
Chlorinated?		Dechlorinated?		mm/dd/yy		mm/dd/yy
Results	% effl water flea	uent trout			A-NOFI	Effluent Limitations
A-NOEL C-NOEL	water rica	tiout			C-NOEL	
Data summary	% st	water flea ırvival	no. young	% s	trout urvival	final weight (mg)
QC standard lab control receiving water control conc. 1 (%) conc. 2 (%) conc. 3 (%) conc. 4 (%) conc. 5 (%) conc. 6 (%) stat test used place * new Reference toxicant toxicant / date limits (mg/L) results (mg/L) Comments	A>90	C>80	>15/female	A>90	C>80	> 2% increase
Laboratory conducting test Company Name Mailing Address City, State, ZIP	:t		Company Rep. Na Company Rep. Sig Company Telephor	me (Printed) nature ne #		

Report WET chemistry on DEP Form "ToxSheet (Fresh Water Version), March 2007."

ATTACHMENT D

Salmonid Survival and Growth Test

The Salmonid survival and growth test must follow the procedures for the fathead minnow larval survival and growth tests detailed in USEPA's freshwater acute and chronic methods manuals with the following Department modifications:

Species - Brook Trout, *Salvelinus fontinalis*, or other salmonid approved by the Department.

Age - Less than six months old for the first test each year and less than twelve months for subsequent tests.

Size - The largest fish must not be greater than 150% of the smallest.

Loading Rate - < 0.5 g/l/day

Feeding rate - 5% of body weight 3 times daily (15%/day)

Temperature - $12^{\circ} \pm 1^{\circ}C$

Dissolved Oxygen - 6.5 mg/l ,aeration if needed with large bubbles (> 1 mm diameter) at a rate of <100/min

Dilution Water - Receiving water upstream of discharge (or other ambient water approved by the Department)

Dilution Series - A minimum of 5 effluent concentrations (including the instream waste concentrations bracketing acute and chronic dilutions calculated pursuant to Section D); a receiving water control; and control of known suitable water quality

Duration - Acute = 48 hours

- Chronic = 10 days minimum

Test acceptability - Acute = minimum of 90% survival in 2 days Chronic = minimum of 80% survival in 10 days; minimum growth of 20 mg/gm/d dry weight in controls, (individual fish weighed, dried at 100°C to constant weight and weighed to 3 significant figures)

ATTACHMENT E



STATE OF MAINE **DEPARTMENT OF ENVIRONMENTAL PROTECTION**

CHAPTER 530.2(D)(4) CERTIFICATION

PAUL R. LEPAGE GOVERNOR

MEPDES#_____ Facility Name_____

Since	the effective date of your permit, have there been;	NO	YES Describe in comments section
1	Increases in the number, types, and flows of industrial, commercial, or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic?		
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?		
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?		
4	Increases in the type or volume of hauled wastes accepted by the facility?		

COMMENTS:

Name (printed):

Signature: Date:

This document must be signed by the permittee or their legal representative.

This form may be used to meet the requirements of Chapter 530.2(D)(4). This Chapter requires all dischargers having waived or reduced toxic testing to file a statement with the Department describing changes to the waste being contributed to their system as outlined above. As an alternative, the discharger may submit a signed letter containing the same information.

Scheduled Toxicity Testing for the next calendar year

Test Conducted	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
WET Testing				
Priority Pollutant Testing				
Analytical Chemistry				
Other toxic parameters ¹				

Please place an "X" in each of the boxes that apply to when you will be conducting any one of the three test types during the next calendar year.

¹ This only applies to parameters where testing is required at a rate less frequently than quarterly.

AUGUSTA 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017 (207) 287-7688 FAX: (207) 287-7826 RAY BLDG., HOSPITAL ST.

BANGOR 106 HOGAN ROAD, SUITE 6 BANGOR, MAINE 04401 (207) 941-4570 FAX: (207) 941-4584 (207) 822-6300 FAX: (207) 822-6303 (207) 764-0477 FAX: (207)760-3143

PORTLAND 312 CANCO ROAD PORTLAND, MAINE 04103 PRESQUE ISLE 1235 CENTRAL DRIVE, SKYWAY PARK PRESQUE ISLE, MAINE 04769-2094

PATRICIA W. AHO Commissioner

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT MAINE WASTE DISCHARGE LICENSE

<u>PROPOSED DRAFT</u> <u>FACT SHEET</u>

DATE:

February 13, 2015

PERMIT NUMBER: #ME0000159

WASTE DISCHARGE LICENSE: #W002727-5N-N-R

NAME AND ADDRESS OF APPLICANT:

TWIN RIVERS PAPER COMPANY LLC 82 BRIDGE AVENUE MADAWASKA, MAINE 04756

COUNTY:

AROOSTOOK

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S): TWIN RIVERS PAPER COMPANY LLC 82 BRIDGE AVENUE MADAWASKA, MAINE 04756

RECEIVING WATER CLASSIFICATION: ST. JOHN RIVER/CLASS C

COGNIZANT OFFICIAL CONTACT INFORMATION: MS. AMY HOLLAND (207) 728-3321 <u>amy.holland@twinriverspaper.com</u>

1. APPLICATION SUMMARY

<u>Application</u>: On August 19, 2014, the Department of Environmental Protection (Department) accepted as complete for processing from Twin Rivers Paper Company (Twin Rivers) a renewal application for Maine Pollutant Discharge Elimination System (MEPDES) #ME0000159 /Waste Discharge License (WDL) #W002727-5N-J-R, which was issued on October 16, 2009 for a five-year term. The 10/16/09 MEPDES permit authorized the monthly average discharge of 15.0 million gallons per day (MGD) of secondary treated paper production process waste waters, treated landfill leachate, non-contact cooling waters, filter backwash and storm water runoff from a paper manufacturing facility to the St. John River, Class C, in Madawaska, Maine

2. PERMIT SUMMARY

- a. <u>Terms and Conditions</u>: This permitting action is carrying forward all the terms and conditions of the previous permitting actions except it is:
 - Incorporating the interim mercury limits established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001);
 - 2. Revising the minimum monitoring frequency requirements for biochemical oxygen demand (BOD₅) and total suspended solids (TSS) based on the results of facility testing;
 - 3. Revising the timing of the screening priority pollutant, analytical chemistry and surveillance level priority pollutant, analytical chemistry testing during permit cycle;
 - 4. Eliminating the effluent limitations and monitoring requirements for total aluminum, chlorodibromomethane, dichlorobromomethane and heptachlor based on the results of facility testing;
 - 5. Establishing monitoring requirements for phosphorous;
 - 6. Increasing the chronic water flea wet surveillance testing; and
 - 7. Establishing a chronic water flea effluent limitation.
- b. <u>History</u>: The most current relevant regulatory actions include:

September 7, 1999 – The U.S. Environmental Protection Agency (USEPA) issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0000159 to previous facility owner Fraser Paper Inc.

May 23, 2000 – Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W002727-5N-F-R by establishing interim monthly average and daily maximum effluent concentration limits of 5.7 parts per trillion (ppt) and 8.6 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through 38 M.R.S.A. § 413 and 06-096 CMR 519. However, the interim limitations remain in effect and enforceable and any modifications to the limits and or monitoring requirements will be formalized outside of this permitting document.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the MEPDES program, and MEPDES permit #ME0000159 has been utilized as the primary reference number for this facility

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ME0000159 W002727-5N-N-R

2. PERMIT SUMMARY (cont'd)

June 25, 2004 – The Department issued global transfer order #W002727-5N-I-T, transferring WDL W002727-5N-H-R from Fraser Papers Inc. to Antonio Levesque & Sons Inc. The facility was known as Fraser Papers Ltd., or Frasier

October 16, 2009 – The Department issued MEPDES permit #ME0000159 / WDL #W002727-5N-J-R to Fraser for a five-year term. The 8/17/04 WDL superseded WDL #W002727-5N-H-R issued on August 17, 2004, WDL #W002727-5N-F-R (and modifications thereto) issued on April 22, 1999, WDL #W002727-44-D-R (and 9/7/94 minor revision thereto) issued on September 27, 1993, WDL #2727 issued on June 27, 1988, and WDL #2727 issued on March 28, 1984 (earliest order on file with the Department).

March 15, 2010 – The Department issued global transfer order #W002727-5N-L-T, transferring WDL W002727-5N-J-R from Fraser Papers Ltd. to Twin Rivers Paper Company, LLC.

February 6, 2012 – The Department issued permit modification #ME0000159/WDL# W002727-5N-M-M to incorporate the average and maximum concentration limits for total mercury.

August 15, 2014 – Twin Rivers submitted a timely and complete General Application to the Department for renewal of the 10/16/09 MEPDES permit. The application was accepted for processing on August 19, 2014, and was assigned WDL #W002727-5N-N-R / MEPDES #ME0000159.

c. <u>Source Description</u>: Twin River's mill is located in the Town of Madawaska, Maine. A map showing the location of the mill and receiving waters is included as **Attachment A** of this fact sheet. Twin River operates a non-integrated paper mill consisting of two large mills with eight paper machines, two off-machine blade coaters for the manufacturing of coated groundwood and publication papers, two supercalendars and two on-machine bill-blade coater for the manufacturing of coated fine paper specialties. Of the eight paper machines, four produce fine papers, three produce groundwood papers and one produces either fine or groundwood papers.

Most of the pulp utilized in paper production at the facility is supplied via a multiple pipeline system that connects Twin River's Madawaska mill with Twin River's Edmunston pulp mills on the Canadian side of the St. John River. Additional kraft sulfite and groundwood pulp is purchased to meet Twin River's paper making needs.

d. <u>Wastewater Treatment</u>: Wastewater from the eight paper machines, two off-machine coaters, two onmachine coaters, the associated coating preparation areas and other facilities is collected in one common sewer and directed to Twin River's existing wastewater treatment facility. Major treatment units and processes include pH adjustment, two 110-foot diameter circular clarifiers, two moving bed biofilm reactors (MBBR), two dissolved air floatation (DAF) devices, and associated sludge handling equipment. A more detailed treatment system description provided by Twin River is included as **Attachment B** of this fact sheet.

Final effluent is conveyed for discharge to the St. John River via a stainless steel pipe measuring 24 inches in diameter with a 60 feet long diffuser with four (4) inch and six (6) inch perforations spaced at five (5) feet on-center. The outfall pipe extends out into the receiving approximately 115 feet. The outfall diffuser is located approximately 1,800 feet downstream of the international bridge between Madawaska, Maine and Edmunston, New Brunswick. The Department has made the determination

2. PERMIT SUMMARY (cont'd)

that as a result of the diffuser, the discharge from mill receives rapid and complete mixing with the St. John River.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A. § 420 and 06-096 CMR 530 require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (last amended July 29, 2012), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S.A. § 467(15)(A)(4) classifies the St. John River from the international bridge in Madawaska to where the international boundary leaves the river in Hamlin, those waters lying within the State, including all impoundments as Class C waters. Standards for classification of fresh surface waters, 38 M.R.S.A. § 465(4) describes the standards for Class C waters.

5. RECEIVING WATER QUALITY CONDITIONS

<u>The State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report</u> (Report), prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists a 15.51-mile segment of the main stem of the St. John River from Madawaska to La Grande Isle (ADB Assessment Unit ID ME0101000116_117R) as, "Category 2: Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses."

The Report also lists a segment of the St. John River at Madawaska within the limits of combined sewer overflows (ADB Assessment Unit ID ME0101000121_117R) as Category 4-A: Rivers and Streams with Impaired Use other than mercury, TMDL Completed." The impairment in this context refers to recreational use due to *Escherichia coli*.

The Report lists all of Maine's fresh waters as, "Category 4-A: Rivers and Streams with Imparired Use, TMDL Completed." Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, "All freshwaters are listed in Category4A (TMDL Completed) due to USEPA approval of a Regional Mercury TMDL. Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many waters, and many fish from any given water, do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption. Maine has already instituted statewide programs for removal and reduction of mercury sources." Pursuant to 38 M.R.S.A. § 420(1-B)(B), "a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11." The Department has established interim monthly

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5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 CMR 519.

The Department has no information at this time that the discharge from the Twin Rivers, as permitted, will cause or contribute to the failure of the receiving water to meet the designated uses of its ascribed classification.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

<u>Regulatory Basis</u>: The discharge from Twin River's Madawaska facility is subject to National Effluent Guidelines (NEG) found in 40 Code of Federal Regulations (CFR) Part 430 – *Pulp, Paper and Paperboard Manufacturing Point Source Category*. The regulation was revised on April 15, 1998 and reorganized 26 subcategories in the previous regulation into 12 sub-categories by grouping mills with similar processes. The applicable Subpart of the new regulation for the Twin River facility is Subpart K, *Fine and Lightweight Papers from Purchased Pulp Subcategory*. The NEGs regulate BOD₅, TSS and pH.

a. <u>Flow:</u> The previous permitting action established, and this permitting action is carrying forward, a monthly average discharge flow limit of 15.0 MGD based on the design capacity for the treatment facility, and a daily maximum discharge flow reporting requirement.

The Department reviewed 53 Discharge Monitoring Reports (DMRs) that were submitted for the period November 2009 – May 2014. A review of data indicates the following:

11011			
Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	15.0	7.78 – 10.67	9.32
Daily Maximum	Report	8.54 - 12.47	10.76

Flow

b. **Dilution Factors**:

06-096 CMR 530(4)(B)(1) states that, "Analyses using numerical acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone and to ensure a zone of passage of at least 3/4 of the cross-sectional area of any stream as required by Chapter 581. Where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design flow, up to and including all of it, as long as the required zone of passage is maintained." With a permitted flow limitation of 15.0 MGD and the location and configuration of the outfall structure, the Department has established dilution factors as follow:

Acute = 36:1Chronic = 36:1Harmonic mean = 186:1

The Department has determined that the discharge via Outfall #001A achieves complete and rapid mixing with the receiving waters. Thus, the Department is utilizing the full 1Q10 stream flow in acute evaluations pursuant to the provisions at 06-096 CMR 530(4)(B)(1).

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

c. <u>Biochemical Oxygen Demand (BOD₅)</u>: The previous permitting action established, and this permitting action is carrying forward, year-round monthly average and daily maximum mass limitations of 12,360 lbs./day and 19,425 lbs./day, respectively, for BOD₅. These limits are more stringent than the allowable technology-based limits pursuant to 40 CFR Part 403.112. They have been carried forward from previous Waste Discharge Licenses and NPDES permits and represent negotiated limits in consideration of existing water quality conditions in the St. John River. The previous permitting action established, and this permitting action is also carrying forward, concentration reporting requirements for BOD₅.

The Department reviewed 55 DMRs that were submitted for the period November 2009 – May 2009 for BOD₅. A review of data indicates the following:

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	12,360	1,547 - 4,795	2,992
Daily Maximum	19,425	2,525 - 11,629	5,387

BOD₅ mass

BOD₅ concentration

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	Report	23 - 61	38
Daily Maximum	Report	37 - 148	71

d. <u>Total Suspended Solids (TSS)</u>: The previous permitting action established, and this permitting action is carrying forward, seasonal monthly average and daily maximum mass limitations for TSS. For the "summer season" of June 1 – October 31, the monthly average and daily maximum limits were 9,893 lbs./day and 12,200 lbs./day, respectively. For the "winter season" of November 1 – May 31, the monthly average and daily maximum limits were 9,893 lbs./day and 19,284 lbs./day, respectively. These limits are more stringent than the allowable technology-based limits pursuant to 40 CFR Part 403.112. They have been carried forward from previous Waste Discharge Licenses and NPDES permits and represent negotiated limits in consideration of existing water quality conditions in the St. John River. The previous permitting action established, and this permitting action is also carrying forward, concentration reporting requirements for TSS.

The Department reviewed 20 summer season DMRs and 32 winter season DMRs that were submitted for the period September 2009 – April 2014 for TSS. It is noted that the daily maximum mass result in July 2011 of 12,545 lbs./day exceeded the daily mass limit of 12,200 lbs./day. A review of data indicates the following:

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	9,893	2,798 - 5,865	4,674
Daily Maximum	12,200	5,169 - 12,545	8,099

Summer TSS mass

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)										
Monthly Average	Report	46 - 85	59										
Daily Maximum	Report	69 - 160	101										

Summer TSS concentration

Winter TSS mass

Value	Limit (lbs./day)	Range (lbs./day)	Mean (lbs./day)
Monthly Average	9,893	2,835 - 6,580	4,313
Daily Maximum	19,284	4,593 - 17,825	7,398

Winter TSS concentration

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	Report	46 - 85	59
Daily Maximum	Report	68 - 244	98

On April 19, 1996, the USEPA issued a guidance document entitled, "*Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies*" (USEPA 1996) as the basis for determining reduced monitoring frequencies. The guidance document was issued to reduce unnecessary reporting while at the same time maintaining a high level of environmental protection for facilities that have a good compliance record and pollutant discharges at levels below permit requirements. Monitoring requirements are not considered effluent limitations under section 402(o) of the Clean Water Act and therefore, anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies.

The USEPA guidance indicates "...*the basic premise underlying a performance-based reduction approach is that maintaining a low average discharge relative to the permit limits results in a low probability of the occurrence of a violation for a wide range of sampling frequencies."* The monitoring frequency reductions in USEPA's guidance were designed to maintain approximately the same level of reported violations as that experienced with the existing baseline sampling frequency in the permit. To establish baseline performance the long term average (LTA) discharge rate for each parameter is calculated using the most recent two-year data set of monthly average effluent data representative of current operating conditions. The LTA/permit limit ratio is calculated and then compared to the matrix in Table I of USEPA's guidance to determine the potential monitoring frequency reduction. It is noted Table I of Variation (cv). The permitting authority can take into consideration further reductions in the monitoring frequencies if the actual cv for the facility is significantly lower than the default 80% utilized by the USEPA in Table I.

In addition to the parameter-by-parameter performance history via the statistical evaluation cited above, the USEPA recommends the permitting authority take into consideration the facility enforcement history and the parameter-by-parameter compliance history and factors specific to the State or facility. If the facility has already been given monitoring reductions due to superior performance, the baseline may be a previous permit.

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

The USEPA's 1996 guidance recommends evaluation of the most current two-years of effluent data for a parameter. A review of the monitoring data for BOD_5 and TSS indicate the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

BOD₅

Long term average = 2,992 lbs./dayMonthly average limit = 12,360 lbs./dayCurrent monitoring frequency = 1/Day

Ratio = $\frac{2,992 \text{ lbs./day}}{12,360 \text{ lbs./day}} = 24\%$

According to Table I of the USEPA guidance, a 1/Day monitoring requirement can be reduced to once a week. Therefore, the monitoring frequency for BOD₅ has been reduced to 1/Week in this permitting action.

<u>TSS</u>

Summer

Long term average = 4,674 lbs./day Monthly average limit = 9,893 lbs./day Current monitoring frequency = 1/Day

Ratio $=\frac{4,674 \text{ lbs./day}}{9,893 \text{ lbs./day}} = 47\%$

According to Table I of the USEPA guidance, a 1/Day monitoring requirement can be reduced to three times a week. Therefore, the monitoring frequency for Summer TSS has been reduced to 3/Week in this permitting action.

Winter

Long term average = 4,313 lbs./day Monthly average limit = 9,893 lbs./day Current monitoring frequency = 1/Day

Ratio = $\frac{4,313 \text{ lbs./day}}{9,893 \text{ lbs./day}} = 44\%$

According to Table I of the USEPA guidance, a 1/Day monitoring requirement can be reduced to three times a week. Therefore, the monitoring frequency for Winter TSS has been reduced to 3/Week in this permitting action.

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

e. <u>pH</u>: The previous permitting action established, and this permitting action is carrying forward, a technology-based pH limit of 5.0 - 9.0 standard units (SU), which is based on 40 CFR, Part 430, and a minimum monitoring frequency requirement of once per day based on best professional judgment.

The Department reviewed 55 DMRs that were submitted for the period November 2009 – May 2014. A review of data indicates the following:

Value	Limit (SU)	Minimum (SU)	Maximum (SU)
Range	5.0 - 9.0	5.0	8.9

In consideration of the compliance history with pH, this permitting action is carrying forward the minimum monitoring frequency requirement of once per week based on a Department best professional judgment.

f. Mercury: Pursuant to Certain deposits and discharges prohibited, 38 M.R.S.A. § 420 and Waste discharge licenses, 38 M.R.S.A. § 413 and Interim Effluent Limitations and Controls for the Discharge of Mercury, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a Notice of Interim Limits for the Discharge of Mercury to the permittee thereby administratively modifying WDL W002727-5N-J-R by establishing interim monthly average and daily maximum effluent concentration limits of 5.7 parts per trillion (ppt) and 8.6 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have been incorporated into Special Condition A, Effluent Limitations And Monitoring Requirements, of this permit.

38 M.R.S.A. § 420(1-B)(B)(1) provides that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department. A review of the Department's data base for the period August 2009 through March 2014 indicates the permittee has been in compliance with the interim limits for mercury as results have been reported as follows:

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Average	5.7	0.45 2.21	1.0
Daily Maximum	8.6	0.43 - 2.21	1.9

Pursuant to 38 M.R.S.A. § 420(1-B)(F), the Department issued a minor revision on February 6, 2012 to the August 26, 2009 permit thereby revising the minimum monitoring frequency requirement from four times per year to once per year given the permittee has maintained at least 5 years of mercury testing data. In fact, the permittee has been monitoring mercury at a frequency of 4/Year since 2000 or 11 years.

Pursuant to 38 M.R.S.A. § 420(1-B)(F), this permitting action is carrying forward the 1/Year monitoring frequency established in the February 6, 2012 permit modification.

FACT SHEET

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

g. <u>Total Phosphorus</u>: Waste Discharge License Conditions, 06-096 CMR 523 (effective January 12, 2001) specifies that water quality-based limits are necessary when it has been determined that a discharge has reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria. In addition, Chapter 523 specifies that water quality based limits may be based upon criteria derived from a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criteria, supplemented with other relevant information which may include: USEPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current USEPA criteria documents; or using USEPA's Water quality criteria, published under section 304(a) of the CWA supplemented where necessary by other relevant information.

USEPA's Quality Criteria for Water 1986 (Gold Book) puts forth an in-stream phosphorus concentration recommendation of less than 100 μ g/L (0.1 mg/L) in streams or other flowing waters not discharging directly to lakes or impoundments, to prevent nuisance algal growth. The use of the 0.1 mg/L Gold Book goal is consistent with the requirements of 06-096 CMR 523 noted above for use in a RP calculation.

Based on the above rationale, the Department has chosen to utilize the Gold Book goal of 100 ug/L. It is the Department's intent to continue to make determinations of actual attainment or impairment based upon environmental response indicators from specific water bodies. The use of the Gold Book goal of 100 ug/L for use in the RP calculation will enable the Department to establish water quality based limits in a manner that is reasonable and that appropriately establishes the potential for impairment, while providing an opportunity to acquire environmental response indicator data, numeric nutrient indicator data, and facility data as needed to refine the establishment of site-specific water quality-based limits for phosphorus. Therefore, this permit may be reopened during the term of the permit to modify any reasonable potential calculation, phosphorus limits, or monitoring requirements based on site-specific data.

The permittee conducted total phosphorus effluent testing in August 2014 (n=2). The arithmetic mean concentration discharged for the period is 1.2 mg/L (1,200 ug/L). The permittee also conducted total phosphorus background concentration in the St. John River in 2014 (n=3). The arithmetic mean concentration of the background for the period is 0.0077 (7.7 ug/L). Using the following calculation and criteria, the permittee does not exhibit a reasonable potential to exceed the EPA's Gold Book ambient water quality goal of 0.1 mg/L (100 μ g/L) for phosphorus or the Department's 06-096 CMR 583 draft criteria of 33 ug/L.

$$Cr = QeCe + QsCs Qr$$

Qe = effluent flow i.e. facility design flow	=	15.0 MGD
Ce = effluent pollutant concentration	=	1.2 mg/L
Qs = 7Q10 flow of receiving water	=	542 MGD
Cs = upstream concentration	=	0.0077 mg/L
Qr = receiving water flow	=	542 MGD
Cr = receiving water concentration		

Proposed Draft

FACT SHEET

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Cr = (15.0 MGD x 1.2 mg/L) + (542 MGD x 0.0077 mg/L) = 0.04 mg/L 542 MGD $Cr = 0.04 \text{ mg/L} < 0.1 \text{ mg/L} \implies \text{No Reasonable Potential}$ $Cr = 0.04 \text{ mg/L} > 0.033 \text{ mg/L} \implies \text{Yes, Reasonable Potential}$

Pursuant to the letter the Department issued to the facility on July 1, 2014, no end-of-pipe limitations for total phosphorus are being established in this permitting action. However, due to the absence of extensive total phosphorous effluent data from the facility this permitting action is establishing a seasonal (June 1 – September 30) reporting only requirement for effluent total phosphorous concentrations at a frequency of 1/Week to further characterize their effluent.

h. <u>Stream Flow</u>: Stream flow measurements must be recorded on the same day as background total phosphorus samples are collected. Flows must be obtained from USGS Gauge #01014000 referred to as "St. John River below Fish River, near Ft. Kent."

Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry Testing

Regulatory Background

38 M.R.S.A. § 414-A and 38 M.R.S.A. § 420 prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA.

06-096 CMR 530(2)(A) specifies the dischargers subject to the rule as:

All licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.

The Department has determined that the discharge from Twin Rivers is subject to the testing requirements of the toxics rule.

06-096 CMR 530(3)(E) states:

For effluent monitoring data and the variability of the pollutant in the effluent, the Department must apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, USEPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of

Proposed Draft

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

water quality criteria, appropriate water quality-based limits must be established in any licensing action.

WET, priority pollutant and analytical chemistry testing, as required by 06-096 CMR 530, are included in this permit in order to characterize the effluent.

WET, Analytical Chemistry and Priority Pollutant Test Schedules

06-096 CMR 530(2)(D)(1) specifies WET, priority pollutant, and analytical chemistry test schedules for dischargers based on their level¹ as defined by 06-096 CMR 530(2)(B). Please see 06-096 CMR 530(2)(D)(1) for a listing of <u>default</u> test schedules.

Explanation of Screening and Surveillance Testing Years

Each year of the five year permit cycle is categorized as either a screening or a surveillance testing year. Surveillance testing years begin upon issuance of the permit and last through 24 months prior to permit expiration (years 1-3 of the permit) and commencing again 12 months prior to permit expiration (year 5 of the permit). Screening level testing begins 24 months prior to permit expiration and lasts through 12 months prior to permit expiration (year 4 of the term of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

(Permit issued) 0 month(s)	12	24	36	48	60
Year 1	Y	Year 2	Year 3	Year 4	Year 5

06-096 CMR 530(2)(D)(3)(c) states in part that for Level II facilities "... may reduce surveillance testing to one WET or specific chemical series every other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)".

An annual certification statement pursuant to 06-096 CMR 530(2)(D)(4), is established in Special Condition L, 06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing of the permit. The annual certification statement requirement is being carried forward in this permitting action.

WET Evaluation

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET

¹ A facility falls into an applicable level based on their chronic dilution factor. The chronic dilution factor associated with the discharge from the permittee is 36:1; therefore, pursuant to 06-096 CMR 530(2)(B), this facility is considered a Level II facility for purposes of toxics testing.

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6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

tests are performed on the invertebrate water flea (*Ceriodaphnia dubia*) and vertebrate brook trout (*Salvelinus fontinalis*).

On July 7, 2014, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department for Twin Rivers in accordance with the statistical approach outlined above. The 7/7/14 statistical evaluation indicates the discharge from Twin River's Wastewater Treatment Facility demonstrated a reasonable potential to exceed the chronic ambient water quality threshold of 2.7% for the water flea. See **Attachment C** of this Fact Sheet for a summary of the WET test results.

Based on the results of facility testing and pursuant to 06-096 CMR 530 (2)(D)(3), this permitting action is carrying forward the previously established reduced surveillance level testing for the brook trout (1/2 Surveillance Years). This permitting action is also carrying forward the default surveillance level testing for the brook trout and the water flea (2/Surveillance Year). This permitting action is establishing a chronic numeric limit of 2.7% for the water flea. This permitting action is also establishing surveillance level testing for the water flea (1/Surveillance Year).

Analytical Chemistry & Priority Pollutant Evaluation

Chemical-specific monitoring is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria. This permit provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment, and receiving water characteristics. 06-096 CMR 584 sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. The Department's DeTox system evaluates the chemical results from your facility as well as other dischargers within the watershed. Please see **Attachment D** of this fact sheet for more information.

Priority pollutants refers to those pollutants listed under "Priority Pollutants" on the form included as **Attachment A** of the permit. Analytical chemistry refers to those pollutants listed under "Analytical Chemistry" on the form included as **Attachment A** of the permit.

On July 8, 2014, the Department conducted a statistical evaluation of the most recent 60 months of chemical-specific test results on file with the Department for Twin River's Wastewater Treatment Facility in accordance with the statistical approach outlined above. The evaluation indicates that the discharge does not exceed or demonstrate a reasonable potential to exceed the critical AWQC for any parameters tested.

Priority Pollutants

Based on the results of the July 8, 2014 statistical evaluation, this permitting action maintains the established screening level testing for priority pollutants of once per screening year (1/Screening Year) and does not establish water quality-based effluent limitations for priority pollutants. Surveillance level priority pollutant monitoring is not required for Level II facilities per 06-096 CMR 530(2)(D)(1).

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Analytical Chemistry

Based on the results of facility testing and pursuant to 06-096 CMR 530 (2)(D)(3), this permitting action maintains the previously established reduced surveillance level analytical chemistry testing at a frequency of once every other surveillance year (1/2 Surveillance Years). This permitting action maintains the established screening level analytical chemistry testing at a frequency of four times per screening year (4/Screening Year).

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the water body to meet standards for Class C classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the <u>St. John Valley Times</u> newspaper on or about August 20, 2014. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

Yvette Meunier Division of Water Quality Management Bureau of Land & Water Quality Department of Environmental Protection 17 State House Station Augusta, Maine 04333-0017 Telephone: (207) 215-1579 e-mail: <u>yvette.meunier@maine.gov</u>

10. RESPONSE TO COMMENTS

Reserved until the end of the public comment period.

ATTACHMENT A



ATTACHMENT B

Treatment System Description



Mill effluent flows to the primary clarifiers for separation of suspended solids. Also added to the primary clarifiers are; filtrate from the sludge dewatering, landfill leachate, and runoff from the sludge pit catch basin in the sludge dewatering area. Caustic and alum can be added to adjust pH and aid the flocculation. Clarified effluent flows to the effluent suction sump from where it is pumped by two variable speed pumps to the MBBR reactors.

The two MBBR tanks are normally operated in series. Flow enters reactor #1, exits, and enters reactor #2. Each reactor has a coarse bubble aeration grid in the bottom of the tank. There is also a 6" diameter aeration pipe, located on the inside wall, near the bottom, encircling the tank. The purpose of this is to aid in providing a proper mixing pattern.

Air for reactor aeration is provided by a multistage centrifugal blower. The blower is set up to allow automatic control through a signal from a DO probe in the reactor #1 discharge sampling box. A DO probe in the reactor #2 discharge sampling box sends a signal controlling the air inlet valve to reactor #2. However, due to the very low organic load at Fraser Papers, the mixing requirements will determine the minimum amount of air that is needed for each reactor. The minimum air flow required for mixing will be determined during start-up and should be programmed into the blower control program. It

ATTACHMENT C

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acility: TWIN RIVERS PAPER COMPANY teceiving Water: ST. JOHN RIVER Diluition Factors: 1/4 Acute: N/A		Permit N Acute: 35.467	lumber: ME0000159 Chronic: 36	Repor Rap 5.1560	t Date: 7/7/2014 idmix: Y
iffluent Limits: Acute (%): 2.820	Chronic (%): 2.766 Date I	range for Evaluation	: From 07/Jul/2009	To: 07/Jul/2014
est Type: A_NOEL					-
est Species: IROUT		Test Date	Resul 100	t(%)	Status
		10/30/2011	100		OK
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Species Summary:					
Test Number: 3	RP: 3.000	Min Result (%):	100.000 RP f	actor (%): 33.333	Status: OK
Test Type: C_NOEL			· · · · · · · · · · · · · · · · · · ·		
Test Species: TROUT		Test Date	Resul	t (%)	Status
		07/12/2009	100	0.000	OK
		10/30/2011	100).000	ОК
		12/08/2013	100	0.000	OK
Species Summary:					
Test Number: 3	RP: 3.000	Min Result (%):	100.000 RP f	factor (%): 33.333	Status: OK
Test Type: A_NOEL					
Test Species: WATER FLEA		Test Date	Resul	lt (%)	Status
· · · ·		07/12/2009	100	0.000	ОК
		10/30/2011	100	0.000	OK
		12/08/2013	100	0.000	ОК
Species Summary:					
Test Number: 3	RP: 3.000	Min Result (%):	100.000 RP f	factor (%): 33.333	Status: OK
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Test Number: 3	RP: 3.000 Min Result (%): 6.000	RP factor (%): 2.000	Status: RP
Species Summary:			
	12/08/2013	30.000	ОК
	10/30/2011	30.000	ОК
	07/12/2009	6.000	RP

State of Maine - Department of Environmental Protection

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ATTACHMENT D











VI. Individual Allocation



Compare allocation and select the smallest

Save as Facility Allocation

VIII. Evaluate Need for Effluent Limits

By facility, pollutant and criterion select Segment Allocation, Individual Allocation and RP Maximum value

If *RP Maximum value* is greater than either *Segment Allocation* or *Individual Allocation*, use lesser value as *Effluent Limit*

Save Effluent Limit for comparison

IX. Reallocation of Assimilative Capacity

Starting at top of segment, get Segment Allocation, Facility Allocation and Effluent Limit

If Segment Allocation equals Effluent Limit, move to next facility downstream

If not, subtract Facility Allocation from Segment Allocation

Save difference

Select next facility downstream

Figure remaining Segment Assimilative Capacity at and below facility, less tributaries

Add saved difference to get an adjusted Segment Assimilative Capacity

Reallocate Segment Assimilative Capacity among downstream facilities per step V

Repeat process for each facility downstream in turn

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMORANDUM

DATE: October 2008

TO: Interested Parties

FROM: Dennis Merrill, DEP

SUBJECT: DEP's system for evaluating toxicity from multiple discharges

Following the requirements of DEP's rules, Chapter 530, section 4(F), the Department is evaluating discharges of toxic pollutants into a freshwater river system in order to prevent cumulative impacts from multiple discharges. This is being through the use of a computer program known internally as "DeTox". The enclosed package of information is intended to introduce you to this system.

Briefly, the DeTox program evaluates each wastewater facility within a watershed in three different ways in order to characterize its effluent: 1) the facility's past history of discharges, 2) its potential toxicity at the point of discharge on an individual basis, and 3) the facility's contribution to cumulative toxicity within a river segment in conjunction with other facilities. The value that is most protective of water quality becomes the value that is held in the DeTox system as an allocation for the specific facility and pollutant.

The system is not static and uses a five-year "rolling" data window. This means that, over time, old test results drop off and newer ones are added. The intent of this process is to maintain current, uniform facility data to estimate contributions to a river's total allowable pollutant loading prior to each permit renewal.

Many facilities are required to do only a relatively small amount of pollutant testing on their effluent. This means, statistically, the fewer tests done, the greater the possibility of effluent limits being necessary based on the facility's small amount of data. To avoid this situation, most facilities, especially those with low dilution factors, should consider conducting more than the minimum number of tests required by the rules.

Attached you will find three documents with additional information on the DeTox system:

- Methods for evaluating the effects of multiple discharges of toxic pollutants
- Working definitions of terms used in the DeTox system
- Reviewing DeTox Reports
- Prototype facility and pollutant reports

If you have questions as you review these, please do not hesitate to contact me at Dennis.L.Merrill@maine.gov or 287-7788.

Maine Department of Environmental Protection

Methods for evaluating the effects of multiple discharges of toxic pollutants.

Reference: DEP Rules, Chapter 530, section 4(F)

To evaluate discharges of toxic pollutants into a freshwater river system and prevent cumulative impacts from multiple discharges, DEP uses a computer program called "DeTox that functions as a mathematical evaluation tool.

It uses physical information about discharge sources and river conditions on file with the Department, established water quality criteria and reported effluent test information to perform these evaluations. Each toxic pollutant and associated water quality criterion for acute, chronic and/or human health effects is evaluated separately.

Each facility in a river drainage area has an assigned position code. This "address" is used to locate the facility on the river segment and in relation to other facilities and tributary streams. All calculations are performed in pounds per day to allow analysis on a mass balance. Pollutants are considered to be conservative in that once in the receiving water they will not easily degrade and have the potential to accumulate.

The process begins with establishing an assimilative capacity for each pollutant and water quality criterion at the most downstream point in the river segment. This calculation includes set-aside amounts for background and reserve quantities and assumed values for receiving water pH, temperature and hardness. The resulting amount of assimilative capacity is available for allocation among facilities on the river.

Each facility is evaluated to characterize its past discharge quantities. The historical discharge, in pounds per day, is figured using the average reported concentration and the facility's permitted flow. As has been past practice, a reasonable potential (RP) factor is used as a tool to estimate the largest discharge that may occur with a certain degree of statistical certainty. The RP factor is multiplied by the historical average to determine an allocation based on past discharges. The RP factor is also multiplied by the single highest test to obtain a maximum day estimate. Finally, the direct average without RP adjustment is used to determine the facility's percent contribution to the river segment in comparison to the sum of all discharges of the pollutant. This percent multiplied by the total assimilative capacity becomes the facility's discharge allocation used in evaluations of the segment loadings.

Additionally, individual facility discharges are evaluated as single sources, as they have been in the past to determine if local conditions are more limiting than a segment evaluation.

With all of this information, facilities are evaluated in three ways. The methods are:

- 1. The facility's past history. This is the average quantity discharged during the past five years multiplied by the applicable RP factor. This method is often the basis for an allocation when the discharge quantity is relatively small in comparison to the water quality based allocation.
- 2. An individual evaluation. This assumes no other discharge sources are present and the allowable quantity is the total available assimilative capacity. This method may be used when a local condition such as river flow at the point of discharge is the limiting factor.
- 3. A segment wide evaluation. This involves allocating the available assimilative capacity within a river segment based on a facility's percent of total past discharges. This method would be used when multiple discharges of the same pollutant to the same segment and the available assimilative capacity is relatively limited.

The value that is most protective of water quality becomes the facility's allocation that is held in the system for the specific facility and pollutant. It is important to note that the method used for allocation is facility and pollutant specific and different facilities on the same segment for the same pollutant can have different methods used depending on their individual situations.

Discharge amounts are always allocated to all facilities having a history of discharging a particular pollutant. This does not mean that effluent limits will be established in a permit. Limits are only needed when past discharge amounts suggest a reasonable potential to exceed a water quality based allocation, either on an individual or segment basis. Similar to past practices for single discharge evaluations, the single highest test value is multiplied by a RP factor and if product is greater than the water quality allowance, an effluent limit is established. It is important to remember an allocation is "banking" some assimilative capacity for a facility even if effluent limits are not needed.

Evaluations are also done for each tributary segment with the sum of discharge quantities in tributaries becoming a "point source" to the next most significant segment. In cases where a facility does not use all of its assimilative capacity, usually due to a more limiting individual water quality criterion, the unused quantity is rolled downstream and made available to other facilities.

The system is not static and uses a five-year rolling data window. Over time, old tests drop off and newer ones are added on. These changes cause the allocations and the need for effluent limits to shift over time to remain current with present conditions. The intent is to update a facility's data and relative contribution to a river's total assimilative capacity prior to each permit renewal. Many facilities are required to do only minimal testing to characterize their effluents. This creates a greater degree of statistical uncertainty about the true long-term quantities. Accordingly, with fewer tests the RP factor will be larger and result in a greater possibility of effluent limits being necessary. To avoid this situation, most facilities, especially those with relatively low dilution factors, are encouraged to conduct more that a minimum number of tests. It is generally to a facility's long-term benefit to have more tests on file since their RP factor will be reduced.

Maine Department of Environmental Protection

Working Definitions of Terms Used in the DeTox System.

Allocation. The amount of pollutant loading set aside for a facility. Separate amounts are set for each *water quality criterion*. Each pollutant having a history of being discharged will receive an allocation, but not all allocations become *effluent limits*. Allocation may be made in three ways: *historical allocation, individual allocation* or *segment allocation*.

Assimilative capacity. The amount of a pollutant that river segment can safely accept from point source discharges. It is determined for the most downstream point in a river segment using the *water quality criterion* and river flow. Separate capacities are set for acute, chronic and human health criteria as applicable for each pollutant. Calculation of this capacity includes factors for *reserve* and *background* amounts.

Background. A concentration of a pollutant that is assumed to be present in a receiving water but not attributable to discharges. By rule, this is set as a rebuttable presumption at 10% of the applicable *water quality criterion*.

Effluent limit. A numeric limit in a discharge permit specifically restricting the amount of a pollutant that may be discharged. An effluent limit is set only when the highest discharge, including an adjustment for *reasonable potential*, is greater than a facility's water quality based *allocation* for a pollutant.

Historical allocation (or *RP history*). One of three ways of developing an *allocation*. The facility's average history of discharges, in pounds at design flow, is multiplied by the appropriate *reasonable potential* factor. An allocation using this method does not become an *effluent limit*.

Historical discharge percentage. For each pollutant, the average discharge concentration for each facility in a segment is multiplied by the permitted flow (without including a *reasonable potential* factor). The amounts for all facilities are added together and a percent of the total is figured for each facility. When a facility has no detectable concentrations, that pollutant is assumed to be not present and it receives no percentage.

Individual allocation. One of three ways of developing an *allocation*. The facility's single highest discharge on record multiplied by the appropriate *reasonable potential* factor is compared to a water quality based quantity with an assumption that the facility is the only point source to that receiving water. If the RP-adjusted amount is larger, the water quality amount may become an *effluent limit*.

Less than. A qualification on a laboratory report indicating the concentration of a pollutant was below a certain concentration. Such a result is evaluated as being one half of the Department's reporting limit in most calculations.

Reasonable potential (RP). A statistical method to determine the highest amount of a pollutant likely to be present at any time based on the available test results. The method produces a value or RP factor that is multiplied by test results. The method relies on an EPA guidance document, and considers the coefficient of variation and the number of tests. Generally, the fewer number of tests, the higher the RP factor.

Reserve. An assumed concentration of a pollutant that set aside to account for non-point source of a pollutant and to allow new discharges of a pollutant. By rule this is set at 15% of the applicable *water quality criterion*.

Segment allocation. One of three ways of developing an allocation. The amount is set by multiplying a facility's historical discharge percentage for a specific pollutant by the assimilative capacity for that pollutant and criterion. A facility will have different allocation percentages for each pollutant. This amount may become an *effluent limit*.

Tributary. A stream flowing into a larger one. A total pollutant load is set by adding the all facilities *allocations* on the tributary and treating this totaled amount as a "point source" to the next larger segment.

Water quality criteria. Standards for acceptable in-stream or ambient levels of pollutants. These are established in the Department's Chapter 584 and are expressed as concentrations in ug/L. There may be separate standards for acute and chronic protection aquatic life and/or human health. Each criterion becomes a separate standard. Different stream flows are used in the calculation of each.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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A. GENERAL PROVISIONS

1. **General compliance**. All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. Other materials. Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- (a) They are not
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.
- (b) The discharge of such materials will not violate applicable water quality standards.

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- (a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. Reopener clause. The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

7. Oil and hazardous substances. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Confidentiality of records. 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. Other laws. The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee if its obligation to comply with other applicable Federal, State or local laws and regulations.

12. Inspection and entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

(a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

maximize removal of pollutants unless authorization to the contrary is obtained from the Department.

- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
- (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
- (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
- (e) The permittee shall install flow measuring facilities of a design approved by the Department.
- (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

- (a) Definitions.
 - (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
- (c) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

- (i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (c) of this section.
- (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

2. Representative sampling. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
- (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- (ii) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - (B) Any upset which exceeds any effluent limitation in the permit.
 - (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.
- (iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.
- (g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.
- (h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (i) One hundred micrograms per liter (100 ug/l);
 - (ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following ``notification levels":
 - (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
 - (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminates and shall specify means of disposal and or treatment to be used.

3. **Removed substances.** Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. **Connection to municipal sewer.** (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices (''BMPs'') means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.



DEP INFORMATION SHEET Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. <u>Administrative Appeals to the Board</u>

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

OCF/90-1/r95/r98/r99/r00/r04/r12

- 1. *Aggrieved Status*. The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
- 2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
- 3. *The basis of the objections or challenge*. If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
- 4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
- 5. *All the matters to be contested*. The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
- 6. *Request for hearing*. The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
- 7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process <u>or</u> that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

- 1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
- 2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
- 3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, <u>see</u> 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.